

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P621447

Luminaire Tested: VLT-F-050U-100D-840-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621447
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2203-563-1)
Test Lab: INNOVATION CENTER
Issue Date: 9/2/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: VLT-F-050U-100D-840-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
FROSTED LENS
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

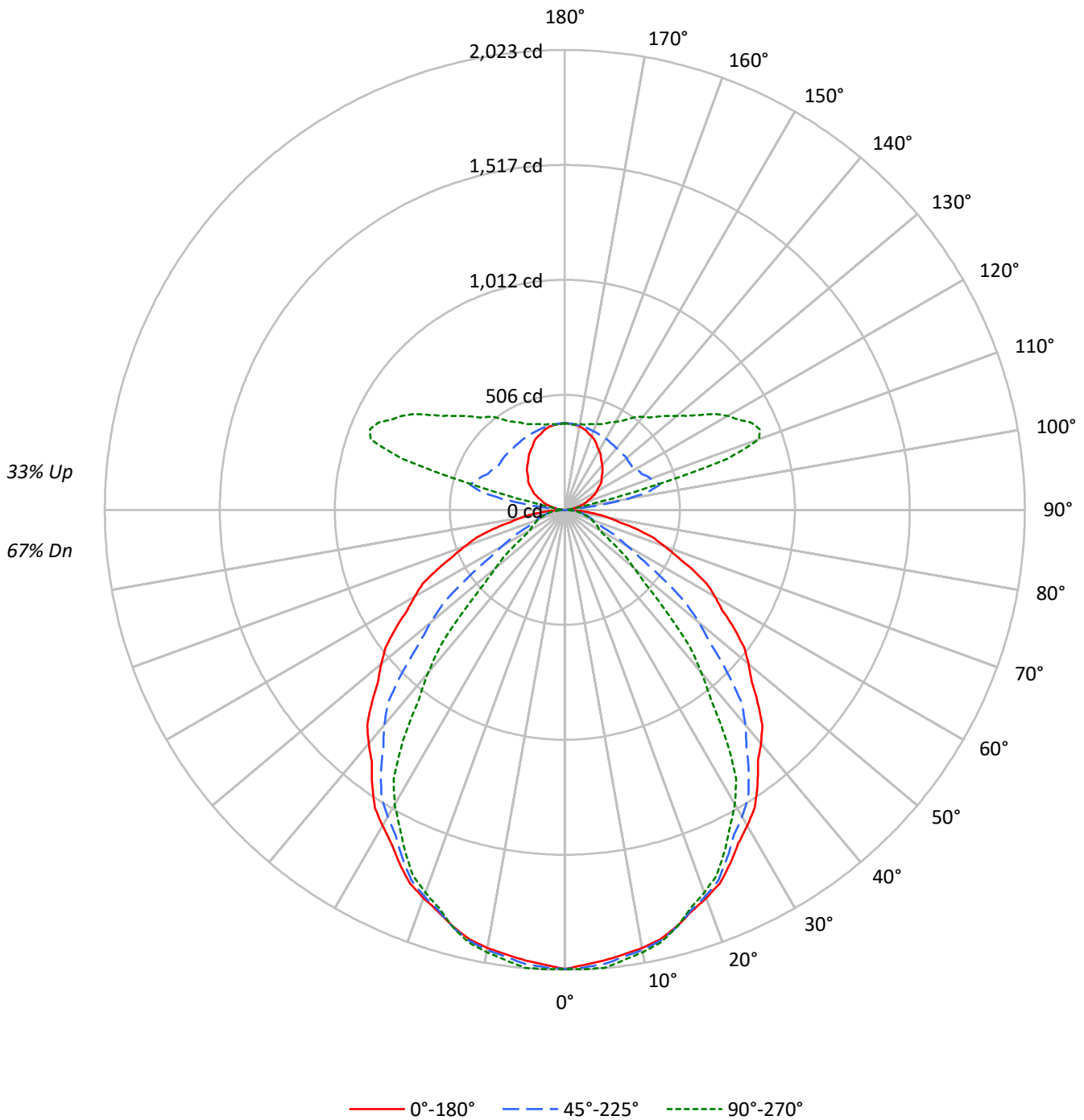
Lumens per Lamp: N/A
Luminaire Lumens: 6160.9 lumens
Efficiency: N/A
Efficacy: 140.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 43.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67				
1	102	98	95	91	96	93	90	87	83	80	78	73	72	70	65	64	62	58				
2	94	87	81	76	89	82	77	73	74	70	66	66	63	60	58	56	54	50				
3	87	77	70	65	81	73	67	62	66	61	57	59	55	52	52	50	47	44				
4	80	69	62	56	75	66	59	54	59	54	49	53	49	45	48	44	41	38				
5	74	62	54	49	69	59	52	47	54	48	43	48	44	40	43	40	37	34				
6	68	56	48	43	64	54	47	41	49	43	38	44	39	36	40	36	33	30				
7	63	51	43	38	60	49	42	37	44	39	34	40	35	32	36	32	29	27				
8	59	47	39	34	56	45	38	33	41	35	31	37	32	29	34	30	27	25				
9	55	43	36	31	52	41	34	30	38	32	28	34	30	26	31	27	24	22				
10	52	40	33	28	49	38	31	27	35	29	25	32	27	24	29	25	22	20				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14490	14490	14490
5°	14335	14441	14561
10°	14258	14319	14395
15°	14103	14118	14118
20°	13875	13811	13684
25°	13610	13379	13147
30°	13293	12912	12393
35°	12938	12354	10873
40°	12565	11569	8755
45°	12173	10247	6351
50°	11761	8570	4402
55°	11352	6524	3288
60°	10928	4521	2484
65°	10449	3223	2550
70°	9760	2713	2627
75°	9022	2775	2662
80°	7843	2930	2760
85°	6356	3260	2750

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12173 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.3	3.1
10°-20°	535.1	8.7
20°-30°	778.3	12.6
30°-40°	861.1	14.0
40°-50°	739.3	12.0
50°-60°	511.9	8.3
60°-70°	305.0	5.0
70°-80°	150.3	2.4
80°-90°	47.3	0.8
90°-100°	46.8	0.8
100°-110°	333.1	5.4
110°-120°	452.2	7.3
120°-130°	368.1	6.0
130°-140°	296.0	4.8
140°-150°	233.4	3.8
150°-160°	170.7	2.8
160°-170°	106.0	1.7
170°-180°	36.1	0.6
0°-30°	1503.7	24.4
0°-40°	2364.8	38.4
0°-60°	3616.0	58.7
0°-90°	4118.5	66.8
90°-120°	832.1	13.5
90°-150°	1729.6	28.1
90°-180°	2042.0	33.1
0°-180°	6160.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2019	2019	2019	2019	2019	
5°	1990	2021	2005	2003	2021	189
15°	1898	1923	1900	1890	1900	534
25°	1719	1731	1690	1660	1660	791
35°	1477	1473	1410	1296	1241	923
45°	1200	1179	1010	730	626	925
55°	907	869	522	300	263	811
65°	615	495	190	152	150	609
75°	325	142	100	98	96	343
85°	77	38	40	35	33	89
90°	0	2	5	7	7	4
95°	19	36	19	22	26	21
105°	74	114	433	553	366	78
115°	132	160	373	775	906	131
125°	189	215	352	615	727	168
135°	234	260	354	506	581	180
145°	277	301	356	441	488	174
155°	325	337	364	400	418	149
165°	361	366	373	383	390	101
175°	380	382	380	378	375	36
180°	380	380	380	380	380	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2019.3	2019.3	2019.3	2019.3	2019.3
2.5°	2002.6	2025.5	2014.3	2014.5	2022.7
5°	1990.1	2020.7	2004.7	2003.0	2021.4
7.5°	1971.8	1999.9	1983.4	1981.3	1997.2
10°	1956.7	1983.3	1965.1	1961.2	1975.5
12.5°	1935.0	1961.6	1941.7	1934.5	1948.8
15°	1898.3	1922.8	1900.4	1890.2	1900.4
17.5°	1852.0	1872.4	1847.0	1830.9	1837.0
20°	1817.0	1837.4	1808.6	1785.8	1791.9
22.5°	1778.6	1795.7	1763.6	1737.4	1741.9
25°	1718.9	1731.2	1689.7	1660.5	1660.5
27.5°	1652.6	1659.9	1611.7	1581.1	1572.5
30°	1604.2	1608.3	1558.3	1522.2	1495.7
32.5°	1554.1	1556.6	1499.9	1441.8	1400.6
35°	1476.9	1472.9	1410.2	1296.3	1241.2
37.5°	1394.8	1385.8	1311.7	1138.4	1056.4
40°	1341.3	1329.1	1235.0	1026.3	934.6
42.5°	1286.3	1269.1	1149.8	911.0	809.4
45°	1199.5	1179.1	1009.7	729.8	625.8
47.5°	1113.5	1086.6	866.1	565.4	476.0
50°	1053.5	1024.9	767.7	465.7	394.3
52.5°	993.4	964.8	667.5	390.9	334.2
55°	907.4	868.7	521.5	299.6	262.8
57.5°	819.8	764.3	388.4	233.4	204.9
60°	761.4	688.0	315.0	193.5	173.1
62.5°	704.7	611.7	258.3	168.9	164.8
65°	615.4	495.0	189.8	152.2	150.2
67.5°	530.3	377.7	141.0	137.2	135.2
70°	465.2	297.9	129.3	127.2	125.2
72.5°	406.8	228.1	117.7	115.5	113.5
75°	325.4	141.9	100.1	98.0	96.0
77.5°	243.2	89.4	82.6	80.5	78.4
80°	189.8	73.6	70.9	68.8	66.8
82.5°	143.1	59.5	57.6	55.4	53.4
85°	77.2	38.4	39.6	35.4	33.4
87.5°	26.7	19.0	19.3	16.4	14.8
90°	0.0	2.3	4.8	7.2	7.2
92.5°	5.7	8.1	10.5	14.9	16.7
95°	19.1	35.5	19.1	21.6	26.3
97.5°	34.0	68.1	140.6	41.5	35.9
100°	45.4	85.2	282.2	83.1	55.0
102.5°	56.9	98.5	381.6	219.2	120.0
105°	74.1	113.9	432.8	552.9	365.9
107.5°	91.3	121.3	413.2	804.7	753.7
110°	102.8	130.9	401.7	845.5	908.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	114.3	142.4	390.2	821.6	927.8
115°	131.5	159.6	373.0	775.3	906.3
117.5°	149.2	176.8	368.7	725.2	859.9
120°	162.6	188.3	361.1	687.1	827.4
122.5°	172.2	199.8	351.5	654.3	783.4
125°	188.9	214.6	351.5	614.7	726.9
127.5°	202.8	229.0	352.0	568.8	679.6
130°	210.4	238.5	353.9	538.0	643.2
132.5°	220.0	248.0	353.9	524.2	610.7
135°	234.3	260.1	353.9	506.2	581.1
137.5°	246.3	273.9	353.9	486.4	550.5
140°	255.9	281.6	353.9	474.8	533.2
142.5°	265.4	289.3	355.8	461.3	516.0
145°	277.4	300.8	356.3	441.0	487.8
147.5°	291.7	312.3	359.2	426.5	462.5
150°	301.3	320.0	361.1	416.8	447.2
152.5°	310.9	327.7	361.1	409.0	433.8
155°	325.2	336.9	363.5	399.8	418.5
157.5°	336.7	347.9	366.3	393.9	407.5
160°	344.3	353.7	368.2	390.0	401.7
162.5°	350.1	359.4	370.2	388.0	396.0
165°	361.1	365.7	373.0	382.8	389.8
167.5°	367.3	371.5	375.4	380.3	384.5
170°	373.0	375.4	375.4	380.3	382.6
172.5°	374.9	379.1	377.3	378.3	380.7
175°	380.2	382.5	380.2	377.8	375.4
177.5°	380.2	382.1	380.2	380.2	378.3
180°	380.2	380.2	380.2	380.2	380.2



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	18.36	19.33	19.17	20.15	21.16	10.60	11.56	11.41	12.38	13.40
	3H	19.87	20.73	20.69	21.56	22.60	11.96	12.82	12.78	13.65	14.70
	4H	20.39	21.20	21.23	22.04	23.09	12.62	13.43	13.46	14.27	15.32
	6H	20.79	21.53	21.64	22.38	23.45	13.21	13.96	14.07	14.81	15.87
	8H	20.92	21.63	21.78	22.50	23.56	13.44	14.15	14.30	15.02	16.08
	12H	21.01	21.68	21.87	22.54	23.63	13.61	14.29	14.48	15.15	16.24
4H	2H	18.21	19.02	19.05	19.86	20.91	11.23	12.04	12.07	12.88	13.93
	3H	19.85	20.52	20.71	21.40	22.47	12.79	13.46	13.64	14.33	15.40
	4H	20.45	21.06	21.31	21.93	23.02	13.59	14.20	14.46	15.07	16.17
	6H	20.95	21.47	21.83	22.37	23.47	14.33	14.86	15.22	15.75	16.85
	8H	21.13	21.62	22.02	22.51	23.63	14.63	15.12	15.51	16.01	17.12
	12H	21.27	21.71	22.17	22.62	23.73	14.85	15.29	15.75	16.20	17.32
8H	4H	20.37	20.86	21.26	21.75	22.86	14.05	14.54	14.94	15.43	16.54
	6H	20.91	21.31	21.82	22.25	23.36	14.94	15.34	15.85	16.27	17.38
	8H	21.14	21.50	22.07	22.43	23.56	15.33	15.69	16.25	16.61	17.74
	12H	21.34	21.65	22.26	22.57	23.75	15.65	15.97	16.58	16.89	18.07
12H	4H	20.33	20.77	21.23	21.68	22.79	14.10	14.54	15.01	15.45	16.57
	6H	20.88	21.24	21.80	22.17	23.29	15.05	15.41	15.97	16.33	17.46
	8H	21.13	21.44	22.05	22.36	23.54	15.50	15.81	16.42	16.73	17.91